EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	600	chemokine and spiro	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 16:47
L2	192	L1 and (benzofuran or isobenzofuran)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 16:48
S1	1	"10535795"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:02
S2	0	"10579545"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:02
S3	0	"10581171"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:02
S4	0	"10520699"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:02
S5	1	"10535795"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:03

EAST Search History

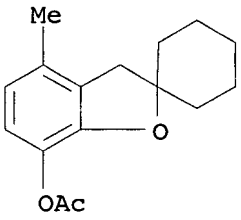
S6	619	hossain.in.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:03
S7	23	S6 and chemokine	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/10 10:03

10575522

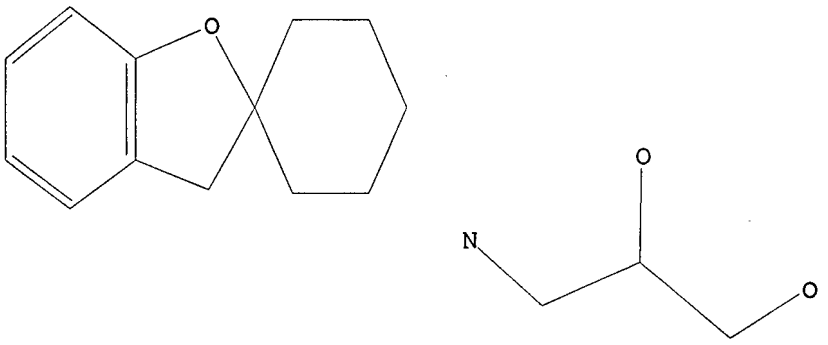
```
=> s 2268.13.4/rid
L1          463 2268.13.4/RID

=> d scan

L1   463 ANSWERS   REGISTRY  COPYRIGHT 2007 ACS on STN
IN   Spiro[benzofuran-2(3H),1'-cyclohexan]-7-ol, 4-methyl-, acetate (9CI)
MF   C16 H20 O3
```



=> d l8
L8 HAS NO ANSWERS
L8 STR



Structure attributes must be viewed using STN Express query preparation.

=> s l8
SAMPLE SEARCH INITIATED 16:10:24 FILE 'REGISTRY'

10575522

=> s l8 full
FULL SEARCH INITIATED 16:10:30 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 143697 TO ITERATE

100.0% PROCESSED 143697 ITERATIONS 7 ANSWERS
SEARCH TIME: 00.00.01

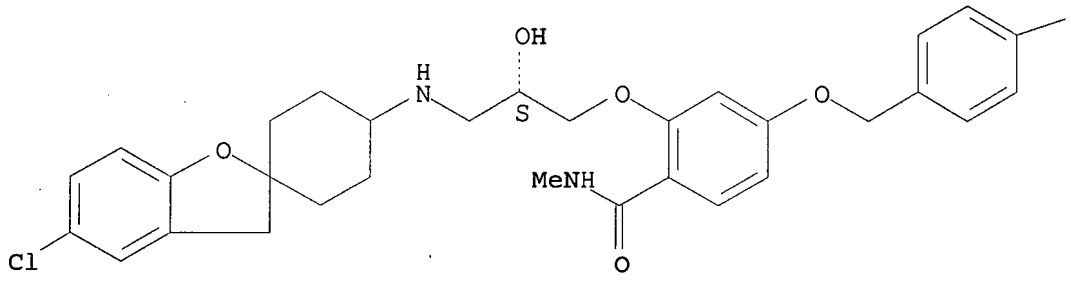
L10 7 SEA SSS FUL L8

=> d scan

L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-[(4-methoxyphenyl)methoxy]-N-methyl- (9CI)
MF C32 H37 Cl N2 O6

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B

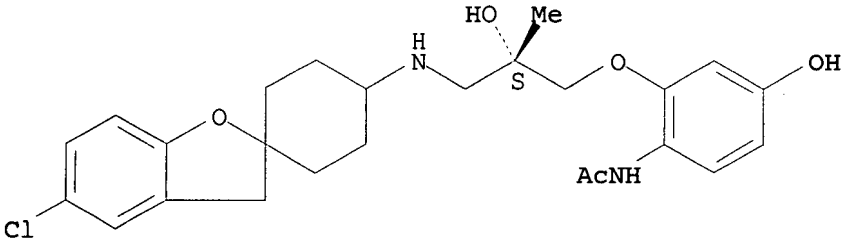
OMe

PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):8

L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxy-2-methylpropoxy]-4-hydroxyphenyl]- (9CI)
MF C25 H31 Cl N2 O5
CI COM

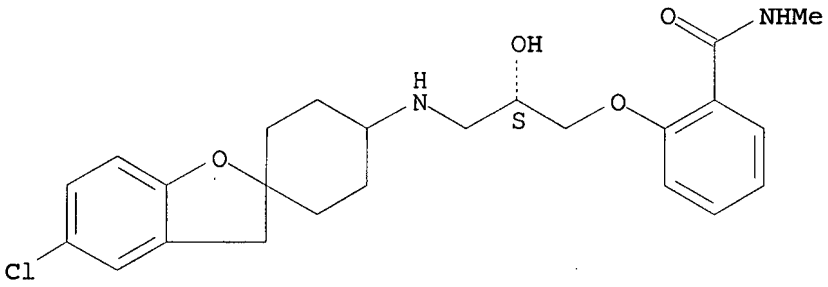
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-N-methyl- (9CI)
MF C24 H29 Cl N2 O4

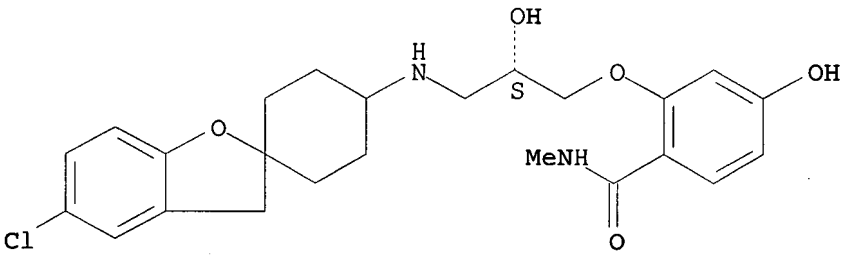
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-hydroxy-N-methyl- (9CI)
MF C24 H29 Cl N2 O5

Absolute stereochemistry.

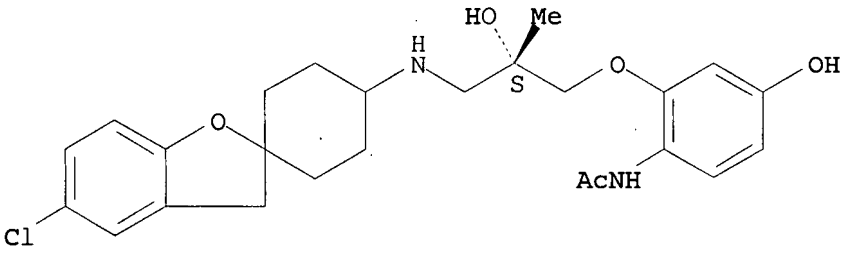


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

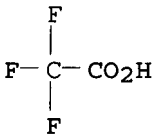
L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxy-2-methylpropoxy]-4-hydroxyphenyl]-, mono(trifluoroacetate) (salt) (9CI)
MF C25 H31 Cl N2 O5 . C2 H F3 O2

CM 1

Absolute stereochemistry.

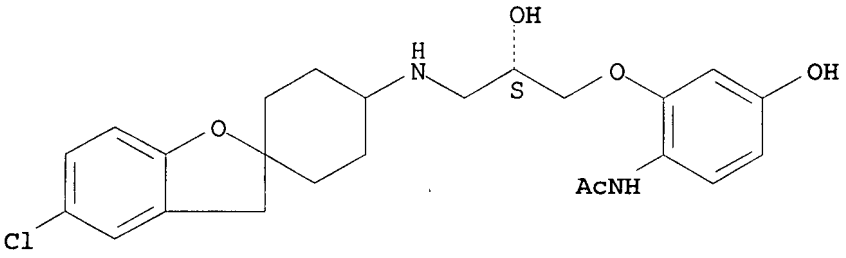


CM 2



L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-hydroxyphenyl]- (9CI)
MF C24 H29 Cl N2 O5

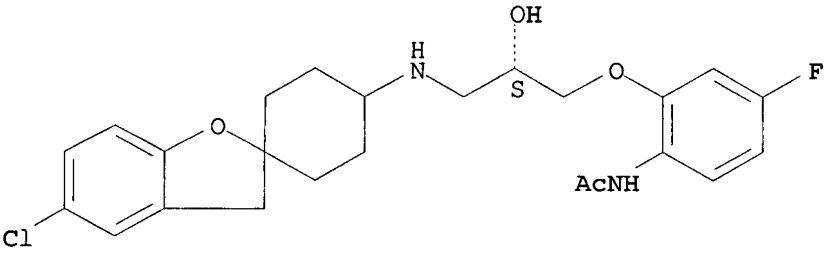
Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L10 7 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-fluorophenyl]- (9CI)
MF C24 H28 Cl F N2 O4

Absolute stereochemistry.



10575522

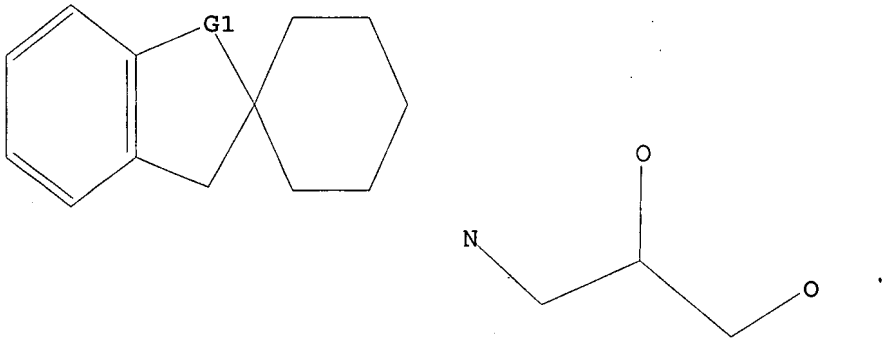
PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10575522

loading C:\Program Files\Stnexp\Queries\10575522bioisostere.str

L15 STRUCTURE UPLOADED

=> d l15
L15 HAS NO ANSWERS
L15 STR



G1 C,O,S,N

Structure attributes must be viewed using STN Express query preparation.

=> s l15
SAMPLE SEARCH INITIATED 16:19:52 FILE 'REGISTRY'
SAMPLE SCREEN SEARCH COMPLETED - 3700 TO ITERATE

54.1% PROCESSED 2000 ITERATIONS 2 ANSWERS
INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)
SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

10575522

L16 2 SEA SSS SAM L15

=> s l15 full
FULL SEARCH INITIATED 16:19:58 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 73153 TO ITERATE

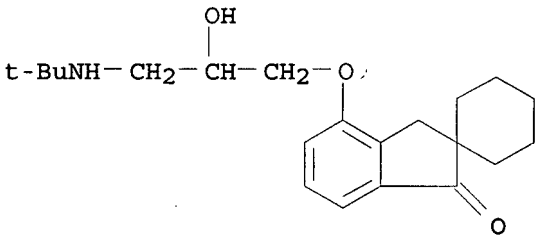
100.0% PROCESSED 73153 ITERATIONS 29 ANSWERS
SEARCH TIME: 00.00.01

L17 29 SEA SSS FUL L15

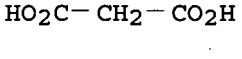
=> d scan

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Propanedioic acid, compd. with 4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:2) (9CI)
MF C21 H31 N O3 . 1/2 C3 H4 O4

CM 1



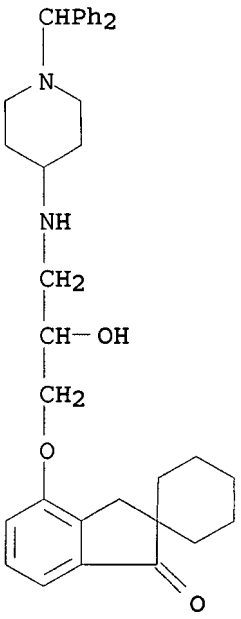
CM 2



HOW MANY MORE ANSWERS DO YOU WISH TO SCAN? (1):100

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[[1-(diphenylmethyl)-4-piperidinyl]amino]-2-hydroxypropoxy]- (9CI)
MF C35 H42 N2 O3

10575522

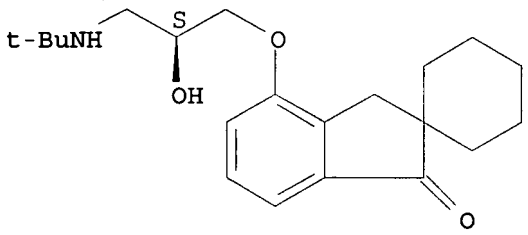


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
MF C21 H31 N O3 . C4 H6 O6

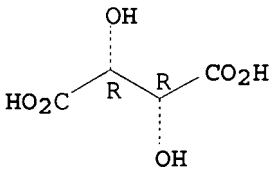
CM 1

Absolute stereochemistry.



CM 2

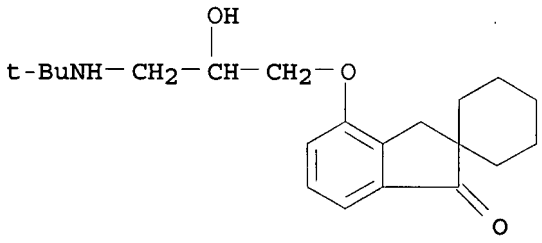
Absolute stereochemistry.



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN

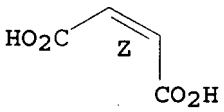
L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (2:1) (salt) (9CI)
MF C21 H31 N O3 . 1/2 C4 H4 O4

CM 1



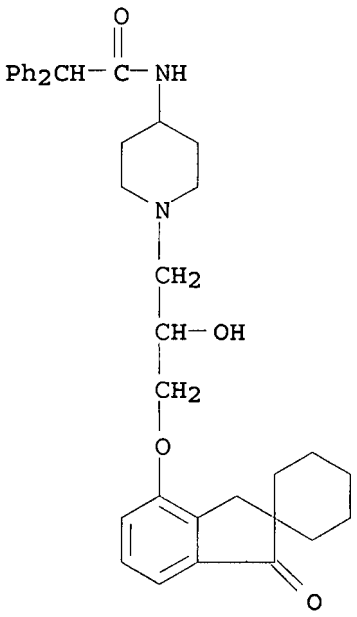
CM 2

Double bond geometry as shown.



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Benzeneacetamide, N-[1-[3-[(1',3'-dihydro-1'-oxospiro[cyclohexane-1,2'-[2H]inden]-4'-yl)oxy]-2-hydroxypropyl]-4-piperidinyl]-α-phenyl-(9CI)
MF C36 H42 N2 O4

10575522

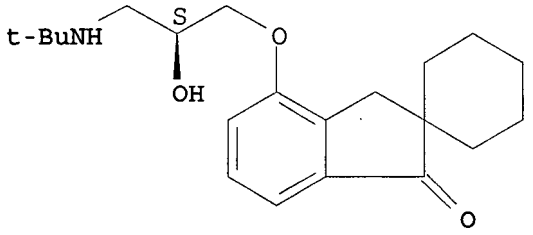


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

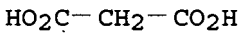
L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Propanedioic acid, compd. with (S)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI)
MF C21 H31 N O3 . C3 H4 O4

CM 1

Absolute stereochemistry.

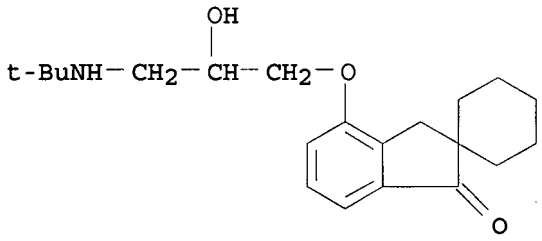


CM 2

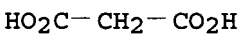


L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Propanedioic acid, compd. with 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI)
MF C21 H31 N O3 . C3 H4 O4

CM 1

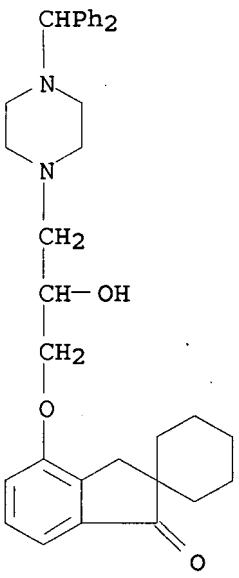


CM 2



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[4-(diphenylmethyl)-1-piperazinyl]-2-hydroxypropoxy]- (9CI)
MF C34 H40 N2 O3

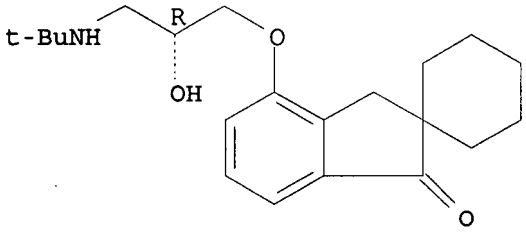
10575522



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (R)- (9CI)
MF C21 H31 N O3
CI COM

Absolute stereochemistry.

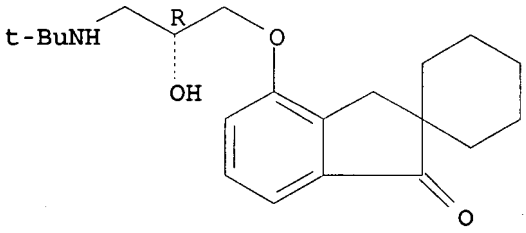


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

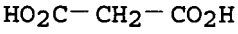
L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Propanedioic acid, compd. with (R)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:2) (9CI)
MF C21 H31 N O3 . 1/2 C3 H4 O4

CM 1

Absolute stereochemistry.



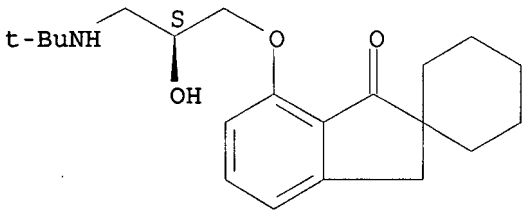
CM 2



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 7'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)- (9CI)
MF C21 H31 N O3

Absolute stereochemistry.

10575522

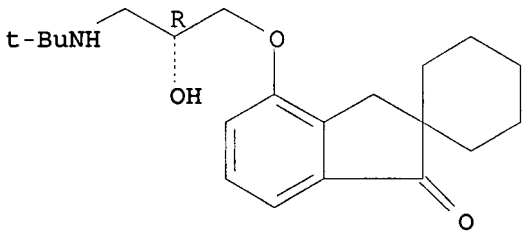


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (R)-, [S-(R*,R*)]-2,3-dihydroxybutanedioate (1:1) (salt) (9CI)
MF C21 H31 N O3 . C4 H6 O6

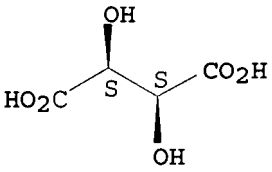
CM 1

Absolute stereochemistry.



CM 2

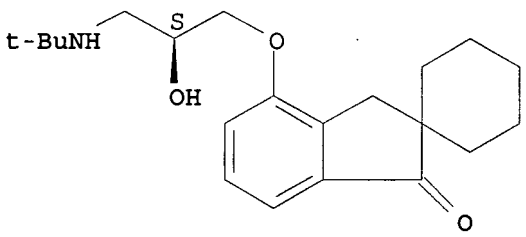
Absolute stereochemistry.



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[(2S)-3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (1:1) (salt) (9CI)
MF C21 H31 N O3 . C4 H4 O4

CM 1

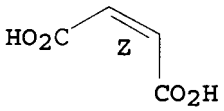
Absolute stereochemistry.



CM 2

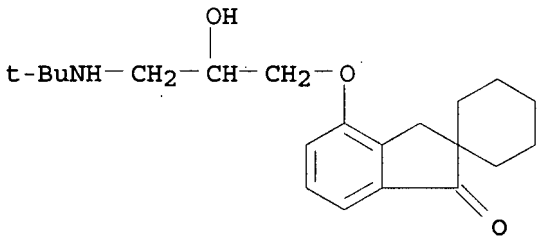
Double bond geometry as shown.

10575522



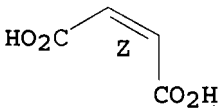
L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (1:1) (salt) (9CI)
MF C21 H31 N O3 . C4 H4 O4

CM 1



CM 2

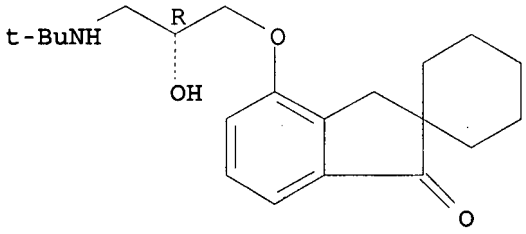
Double bond geometry as shown.



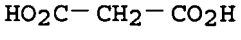
L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Propanedioic acid, compd. with (R)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI)
MF C21 H31 N O3 . C3 H4 O4

CM 1

Absolute stereochemistry.



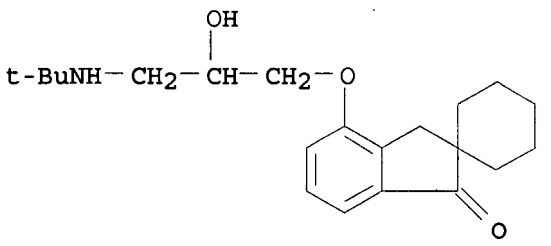
CM 2



L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI)

10575522

MF C21 H31 N O3
CI COM

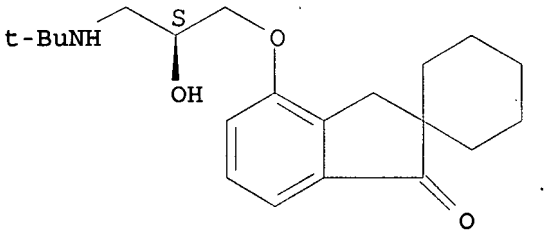


PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

10575522

L17 29 ANSWERS REGISTRY COPYRIGHT 2007 ACS on STN
IN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)- (9CI)
MF C21 H31 N O3
CI COM

Absolute stereochemistry.



PROPERTY DATA AVAILABLE IN THE 'PROP' FORMAT

ALL ANSWERS HAVE BEEN SCANNED

10575522

FILE 'CAPLUS' ENTERED AT 16:25:58 ON 08 MAY 2007

FILE 'REGISTRY' ENTERED AT 16:26:04 ON 08 MAY 2007
L19 24 S L17 AND SPIRO

FILE 'CAPLUS' ENTERED AT 16:26:26 ON 08 MAY 2007
L20 19 S L19

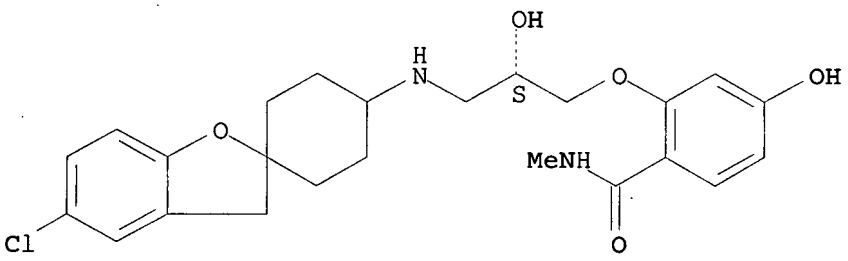
=> d cbib hitstr abs 1-19

L20 ANSWER 1 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
2005:371243 Document No. 142:430122 Preparation of coumaranspiro[2,1']cyclohexanes as modulators of chemokine receptor activity. Hossain, Nafizal (Astrazeneca Ab, Swed.). PCT Int. Appl. WO 2005037814 A1 20050428, 56 pp. DESIGNATED STATES: W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW; RW: AT, BE, BF, BJ, CF, CG, CH, CI, CM, CY, DE, DK, ES, FI, FR, GA, GB, GR, IE, IT, LU, MC, ML, MR, NE, NL, PT, SE, SN, TD, TG, TR. (English). CODEN: PIXXD2. APPLICATION: WO 2004-SE1476 20041014. PRIORITY: SE 2003-2755 20031017.

IT **851029-88-4P 851029-89-5P 851029-90-8P 851029-91-9P 851029-93-1P**
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of coumaranspiro[2,1']cyclohexanes as modulators of chemokine receptor activity)

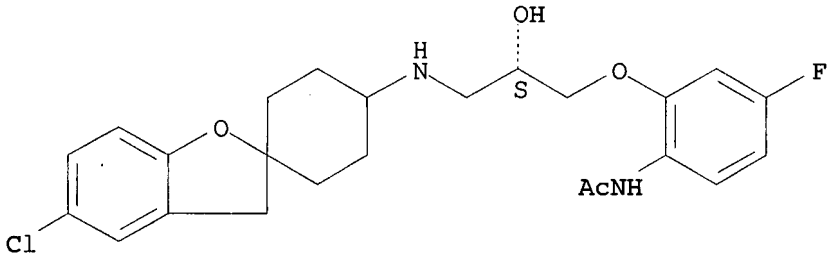
RN 851029-88-4 CAPLUS
CN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-hydroxy-N-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



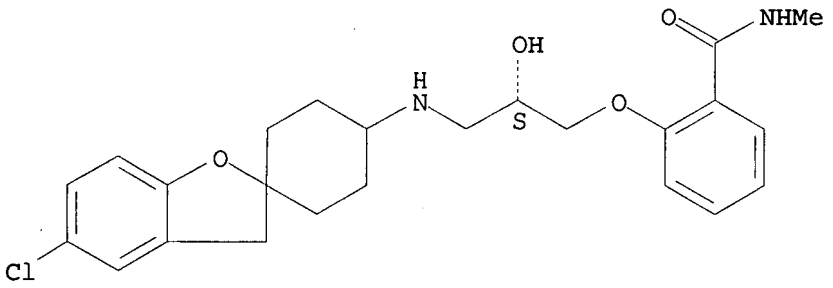
RN 851029-89-5 CAPLUS
CN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-fluorophenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



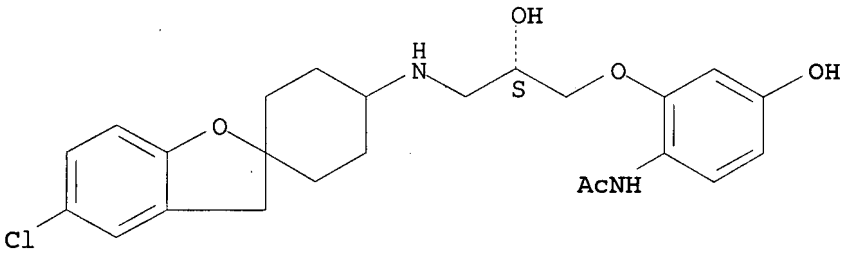
RN 851029-90-8 CAPLUS
CN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-N-methyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



RN 851029-91-9 CAPLUS
CN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-hydroxyphenyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

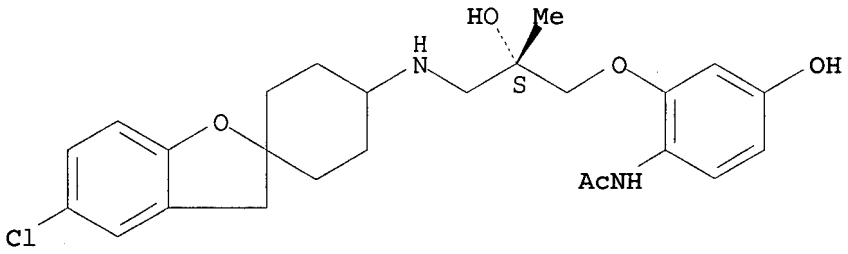


RN 851029-93-1 CAPLUS
CN Acetamide, N-[2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxy-2-methylpropoxy]-4-hydroxyphenyl]-, mono(trifluoroacetate) (salt) (9CI) (CA INDEX NAME)

CM 1

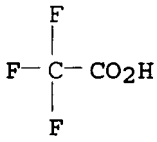
CRN 851029-92-0
CMF C25 H31 Cl N2 O5

Absolute stereochemistry.



CM 2

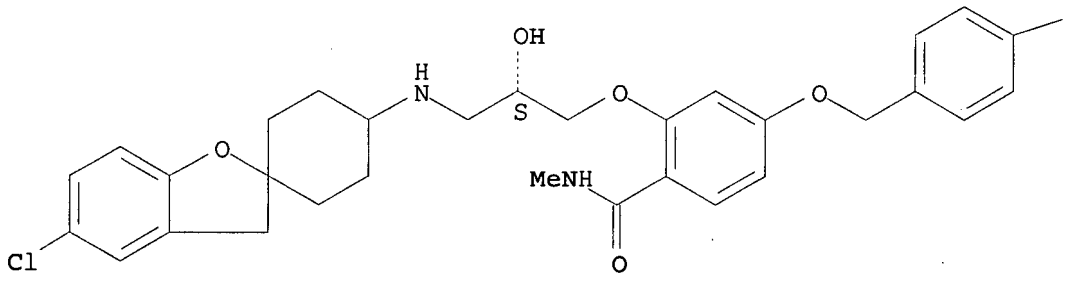
CRN 76-05-1
CMF C2 H F3 O2



IT **851029-94-2P**
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(preparation of coumaranspiro[2,1']cyclohexanes as modulators of chemokine receptor activity)
RN 851029-94-2 CAPLUS
CN Benzamide, 2-[(2S)-3-[(5-chlorospiro[benzofuran-2(3H),1'-cyclohexan]-4'-yl)amino]-2-hydroxypropoxy]-4-[(4-methoxyphenyl)methoxy]-N-methyl- (9CI) (CA INDEX NAME)

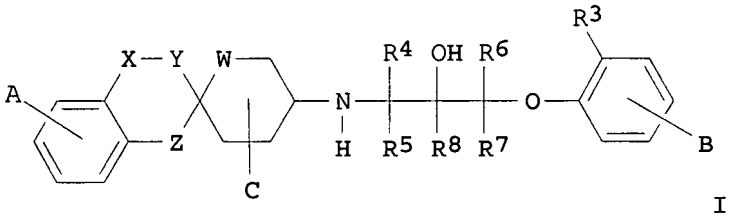
Absolute stereochemistry.

PAGE 1-A

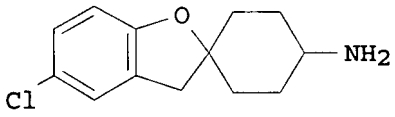


PAGE 1-B

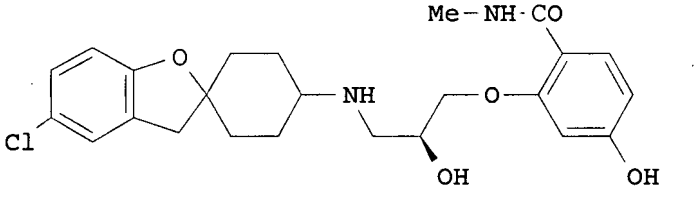
GI



I



II



III

AB Title compds. I [A = (R1)m; B = (R9)t; W = (CH2)q; C = (R2)n; R1 = H, CN, OH, etc.; R2 = halo, alkyl; R3 = NHCOR10, CONR11R12, CO2R12a; R4, R5, R6, R7, R8 = H, alkyl; R9 = halo, CN, OH, etc.; R10 = alkyl, alkenyl, cycloalkyl, etc.; R11, R12 = H, (un)saturate 3- to 6-membered ring with provisos; R12a = H, alkyl; X = bond, CH2, O, etc.; Y = bond, CH2, O, etc.; O, NH, CH2 with provisos; m = 0-4; n = 0-2; q = 0-1; t = 0-2] and their pharmaceutically acceptable salts were prepared For example, condensation of amine II, e.g., prepared from 2-(bromomethyl)-4-chloro-1-fluorobenzene in 2-step, and 4-[(4-methoxybenzyl)oxy]-N-methyl-2-((2S)-oxiran-2-ylmethoxy)benzamide, afforded coumaranspirocyclohexane III. Compds. I are claimed to be useful for the treatment of rheumatoid arthritis.

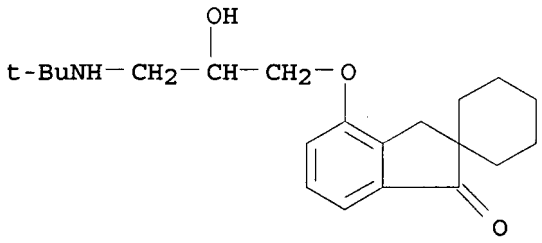
L20 ANSWER 2 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

2005:244333 Document No. 143:307 Atom, atom-type, and total nonstochastic and stochastic quadratic fingerprints: a promising approach for modeling of antibacterial activity. Marrero-Ponce, Yovani; Medina-Marrero, Ricardo; Torrens, Francisco; Martinez, Yamile; Romero-Zaldivar, Vicente; Castro, Eduardo A. (Department of Pharmacy, Faculty of Chemical-Pharmacy, Central University of Las Villas, Santa Clara, 54830, Cuba). Bioorganic & Medicinal Chemistry, 13(8), 2881-2899 (English) 2005. CODEN: BMECEP. ISSN: 0968-0896. Publisher: Elsevier Ltd..

IT **81840-58-6**, Spirendolol
RL: PAC (Pharmacological activity); PRP (Properties); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(atom, atom-type, and total nonstochastic and stochastic quadratic fingerprints as promising approach for modeling antibacterial activity)

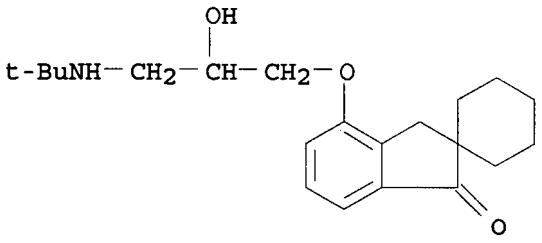
RN 81840-58-6 CAPLUS

CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB The Topol. Mol. Computer Design (TOMOCOMD-CARDD) approach has been introduced for the classification and design of antimicrobial agents using computer-aided mol. design. For this propose, atom, atom-type, and total quadratic indexes have been generalized to codify chemical structure information. In this sense, stochastic quadratic indexes have been introduced for the description of the mol. structure. These stochastic fingerprints are based on a simple model for the intramol. movement of all valence-bond electrons. In this work, a complete data set containing 1006 antimicrobial agents is collected and presented. Two structure-based antibacterial activity classification models have been generated. The models (including nonstochastic and stochastic indexes) classify correctly more than 90% of 1525 compds. in training sets. These models permit the correct classification of 92.28% and 89.31% of 505 compds. in an external test sets. The approach, also, satisfactorily compares with respect to nine of the most useful models for antimicrobial selection reported to date. Finally, a virtual screening of 87 new compds. reported in the anti-infective field with antibacterial activities is developed showing the ability of the models to identify new leads as antibacterial.

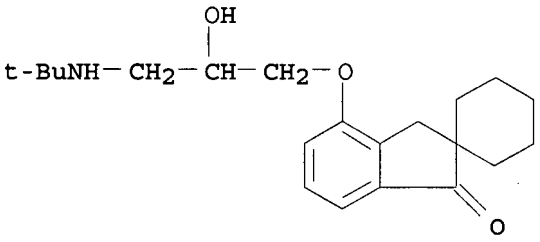
L20 ANSWER 3 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
2002:481298 Document No. 137:179389 The Interrelation of Physicochemical Parameters and Topological Descriptors for a Series of β-Blocking Agents. Quigley, John M.; Naughton, Sarah M. (Department of Pharmaceutical Chemistry, Trinity College, Dublin, Ire.). Journal of Chemical Information and Computer Sciences, 42(4), 976-982 (English) 2002. CODEN: JCISD8. ISSN: 0095-2338. Publisher: American Chemical Society.
IT **81840-58-6**, Spirendolol
RL: PAC (Pharmacological activity); PRP (Properties); BIOL (Biological study)
(interrelation of physicochem. parameters and topol. descriptors for a series of β-blocking agents)
RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB The inter-correlation between a series of physicochem. parameters and topol. indexes for a set of β-blockers is investigated. Partition coeffs. are calculated using the ClogP program, and the results are compared with previous data, both exptl. and theor. These data are complemented by hydrophilicity and solubility calcns., together with the determination of mol. area and

volume Connectivity indexes, of order 1 and 2, including simple, valence, and differential terms, are evaluated. The derivation of a recently proposed topol. descriptor, the eccentric adjacency index, from the adjacency and distance matrixes, is presented. The corresponding valence term, a novel descriptor, is developed, and other indexes related to the distance matrix, the Wiener and Hyper-Wiener terms, are included. A high degree of linear correlation between the connectivity indexes is noted. The correlations for first-order terms are slightly superior to the corresponding second-order values. This is particularly true when considering the valence terms compared with the non-valence terms. The relation between these terms and reported pharmacol. properties are investigated. A decrease in the eccentric adjacency index resulted in an increase in the pharmacol. property.

L20 ANSWER 4 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1996:618913 Document No. 126:366 Three-Dimensional Models for Agonist and Antagonist Complexes with β2 Adrenergic Receptor. Kontoyianni, Maria; DeWeese, Carol; Penzotti, Julie E.; Lybrand, Terry P. (Center for Bioengineering, University of Washington, Seattle, WA, 98195-1750, USA). Journal of Medicinal Chemistry, 39(22), 4406-4420 (English) 1996. CODEN: JMCMAR. ISSN: 0022-2623. Publisher: American Chemical Society.
IT **81840-58-6**, Spirendolol
RL: BPR (Biological process); BSU (Biological study, unclassified); BIOL (Biological study); PROC (Process)
(three-dimensional models for agonist and antagonist complexes with β2-adrenergic receptor)
RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

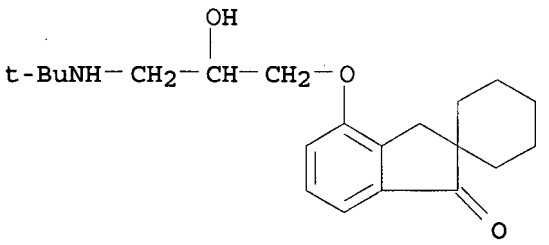


AB Computer-modeling techniques have been used to generate docked complexes for a series of β adrenergic agonists and antagonists with a three-dimensional model of the β2 adrenergic receptor. For all ligands tested, it proved possible to dock low-energy conformers in the receptor model, with sensible electrostatic, steric, and hydrogen-bonding interactions, many of which are supported by exptl. studies of the β2 receptor. Our results illustrate the power of mol. modeling techniques, when coupled with appropriate exptl. methods and data, to investigate structure-function properties of integral membrane receptor proteins that cannot yet be studied by direct structural methods.

L20 ANSWER 5 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1991:229391 Document No. 114:229391 Preparation of tripeptides with N terminal carbamoyl or acyl groups as renin inhibitors. Schoen, William R. (Merck and Co., Inc., USA). Eur. Pat. Appl. EP 347987 A2 19891227, 50 pp. DESIGNATED STATES: R: CH, DE, FR, GB, IT, LI, NL. (English). CODEN: EPXXDW. APPLICATION: EP 1989-201563 19890615. PRIORITY: US 1988-209749 19880620.
IT **81840-58-6**, Spirendolol
RL: RCT (Reactant); RACT (Reactant or reagent)
(antihypertensive pharmaceuticals containing renin inhibitors and)

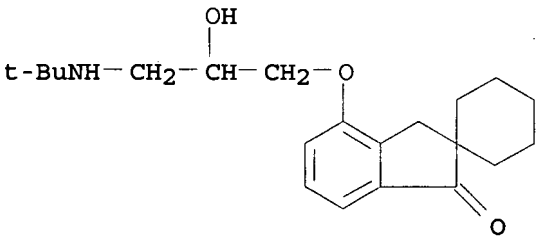
10575522

RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB Q-A-B-E-G-J [I; Q = amino, HO, alkoxy, etc.; A = CO, OC(O); B, E = α-amino acid residue; G = substituted iminotrimethylenecarbonyl; J = substituted amino, substituted alkoxy, etc.], useful as renin inhibitors (no data) were prepared H2NCMe2CONHCH2CH2CO-Phe-His-NHCHQCH(OH)CH2CO-NHCHMePr (Q = cyclohexylmethyl) was prepared in many steps starting from HO2CCMe2CH2CO2Me and PhCH2OH. I are useful in treatment of hypertension and congestive heart failure and may be formulated with many known diuretics, α- and β-adrenergic blocking agents, Ca channel blockers, vasodilators, and central nervous system agents.

L20 ANSWER 6 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1990:584666 Document No. 113:184666 Beta adrenoceptors and regenerating corneal epithelium. Liu, G. S.; Trope, G. E.; Basu, P. K. (Dep. Ophthalmol., Univ. Toronto, Toronto, ON, M5S 2K6, Can.). Journal of Ocular Pharmacology, 6(2), 101-12 (English) 1990. CODEN: JOPHER. ISSN: 8756-3320.
IT **81840-58-6**, L1 32-468
RL: BIOL (Biological study)
(eye epithelium wound healing inhibition by)
RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

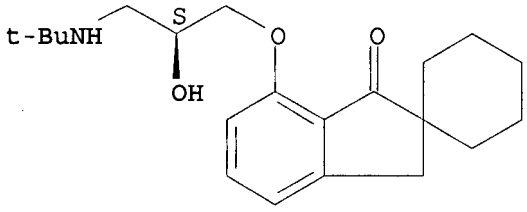


AB β-Blockers inhibit corneal re-epithelialization. This may be due to β-2 receptor-controlled mechanisms. To investigate this possibility, a randomized, double-masked study involving 60 rabbit iatrogenic-induced corneal ulcers produced with iodine vapor was performed. Two β-specific drugs were tested, namely, betaxolol 0.25% (Alcon) (β1) and L132-468 0.25% (β2). There was no difference in the wound healing rates among all groups at 24 h, but there were significant differences at 48 h. At 72 h, the L132-468-treated groups showed less healing than the betaxolol treated group. The control group was healed at this time. By the 20th post burning day, SEM revealed that betaxolol-treated corneas were completely healed with normal epithelial microvilli. The L132-468-treated corneas were also healed but desquamation and abnormal cells were observed In conclusion, β-2

blockers inhibit corneal re-epithelialization more potently than β-1 blockers.

L20 ANSWER 7 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1988:562906 Document No. 109:162906 Modeling of β-adrenoceptors based on molecular electrostatic potential studies of agonists and antagonists. El Tayar, Nabil; Carrupt, Pierre Alain; Van de Waterbeemd, Han; Testa, Bernard (Sch. Pharm., Univ. Lausanne, Lausanne, CH-1005, Switz.). Journal of Medicinal Chemistry, 31(11), 2072-81 (English) 1988. CODEN: JMCMAR. ISSN: 0022-2623.
IT **116076-61-0**
RL: PRP (Properties)
(mol. electrostatic potential of, in modeling of β-adrenergic receptors)
RN 116076-61-0 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 7'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

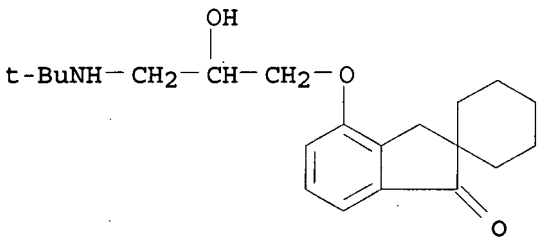


AB The mol. electrostatic potential (MEP) of 32 β-adrenoceptor ligands, mainly antagonists, was calculated by the STO-3G ab initio quantum mech. method. The MEP of phenylethanolamines (PEAs) features a neg. min. in the meta region (designated M1) which is topog. equivalent to a min. (designated M2) found in the vicinity of the aromatic ring in all (aryloxy)propanolamines (AOPAs). In these compds., a 2nd neg. zone located beyond the meta position and designated M3 is found in all β1-selective antagonists and in some nonselective and β2-selective antagonists. The β1-selective antagonists feature in the para position an addnl. zone which is pos. (P4) in the full antagonists and neg. (M4) in the antagonists displaying intrinsic sympathomimetic activity (ISA). The MEP-based pharmacophoric models of PEAs, AOPAs, and oxime ethers show common elements and lead to a proposed general model for β-adrenoceptor ligands.

L20 ANSWER 8 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1987:113415 Document No. 106:113415 Endothelial potentiation of relaxation response to beta adrenoceptor blocking agents. Mostaghim, Radman; Maddox, Yvonne T.; Ramwell, Peter W. (Med. Cent., Georgetown Univ., Washington, DC, 20007, USA). Journal of Pharmacology and Experimental Therapeutics, 239(3), 797-801 (English) 1986. CODEN: JPETAB. ISSN: 0022-3565.
IT **66481-58-1**
RL: BIOL (Biological study)
(blood vessel relaxation by, endothelium potentiation of)
RN 66481-58-1 CAPLUS
CN Propanedioic acid, compd. with 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 81840-58-6
CMF C21 H31 N O3



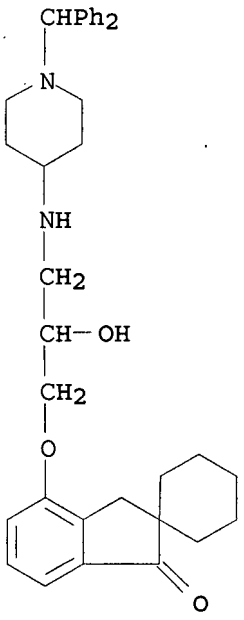
CM 2

CRN 141-82-2
CMF C3 H4 O4

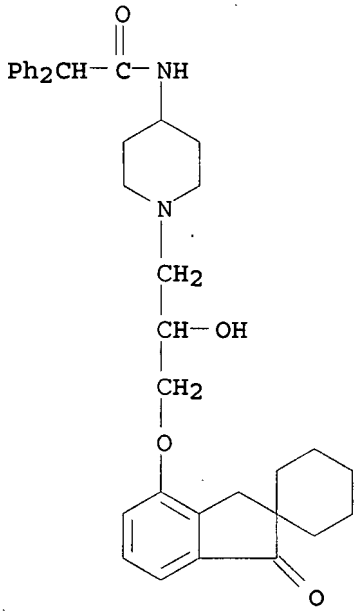
$HO_2C-CH_2-CO_2H$

AB A number of β-adrenergic blocking drugs were evaluated on ring prepns. of endothelium intact and denuded segments of the rat aorta. The prepns. were preconstricted under isometric conditions with an EC80 dose of phenylephrine. Labetalol (10-7-10-5 M), MK-761, (10-7-10-5 M), timolol maleate (10-7-10-4 M) and DL-propranolol (1-6-10-4 M) relaxed both endothelium intact and denuded vessels in a dose-dependent manner. Spirendolol malonate (2.8 + 10-8-8.1 + 10-6 M), a specific beta-2 receptor antagonist and L 643717 [85648-13-1] (1.8 + 10-7-3.6 + 10-6 M), a specific beta-1 receptor antagonist did not elicit relaxation. Labetalol, MK-761, timolol and propranolol promoted relaxation only when vascular segments were preconstricted with phenylephrine or norepinephrine and failed to do so when prostaglandin F2α or U46619 were used. This indicates a possible displacement of alpha adrenergic agonists with the beta antagonists. The degree of relaxation induced by labetalol, MK-761, timolol and propranolol was less when the endothelium was removed. Eicosatetraynoic acid (3.2 + 10-5 M) significantly attenuated the relaxation response to labetalol, MK-761 and timolol in the intact but not in denuded vascular prepns. These studies suggest that some of the vascular effects of beta blockers may relate to the endothelium.

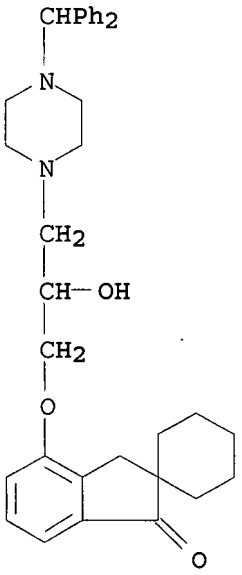
L20 ANSWER 9 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1987:84635 Document No. 106:84635 (Aryloxy)hydroxypropyl heterocycles. Berthold, Richard; Ott, Hans (Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.). Ger. Offen. DE 3524955 A1 19860130, 60 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1985-3524955 19850712. PRIORITY: DE 1984-3426630 19840719; DE 1984-3426632 19840719; DE 1985-3509557 19850316.
IT **103915-01-1P 103915-02-2P 104752-91-2P**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)
(preparation of, as cardiotonic)
RN 103915-01-1 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[[1-(diphenylmethyl)-4-piperidinyl]amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



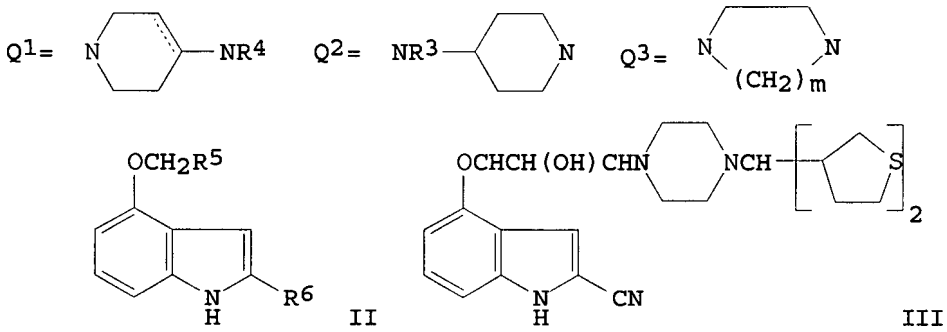
RN 103915-02-2 CAPLUS
CN Benzeneacetamide, N-[1-[3-[(1',3'-dihydro-1'-oxospiro[cyclohexane-1,2'-[2H]inden]-4'-yl)oxy]-2-hydroxypropyl]-4-piperidinyl]-α-phenyl- (9CI) (CA INDEX NAME)



RN 104752-91-2 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[4-(diphenylmethyl)-1-piperazinyl]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



GI



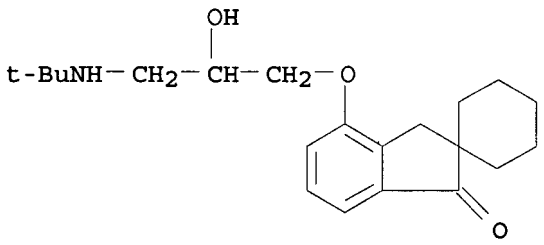
AB R1OCH2CH(OH)CH2Z(CO)nR2 [I; R1 = (un)substituted (hetero)aryl; R2 = (hetero)aryl, cycloalkyl, substituted alkyl; Z = NR3(CH2)nNR4, Q1, Q2, Q3; R3 = H, alkyl; R4 = H, alkyl, (un)substituted Ph; n = 0, 1 m = 2-4] were prepared as cardiotonics (no data). Thus, (S)-2,2-dimethyl-1,3-dioxolane-4-methanol was sequentially benzylated deketalized, tosylated, and condensed with 4-hydroxy-1H-indole-2-carboxamide to give (R)-4-propoxyindole II [R5 = PhCH2OCH2CH(OH), R6 = CONH2]. This was debenzylated, epoxidized, and dehydrated to give (S)-II (R5 = oxiranyl, R6 = cyano). The latter was condensed with 1-(di-3-thienylmethyl)piperazine to give (S)-(indolyloxy)hydroxypropylpiperazine III.

L20 ANSWER 10 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1987:3501 Document No. 106:3501 Migraine is not a platelet disorder. Steiner, T. J.; Joseph, Rajiv; Rose, F. Clifford (Princess Margaret Migraine Clin., Charing Cross Hosp., London, W6 8RF, UK). Headache, 25(8), 434-40 (English) 1985. CODEN: HEADAE. ISSN: 0017-8748.

IT **81840-58-6**
RL: BIOL (Biological study)
(in migraine treatment in humans, TXA2 response to, blood platelets in relation to)

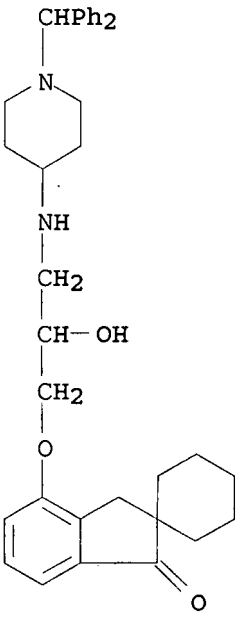
10575522

RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

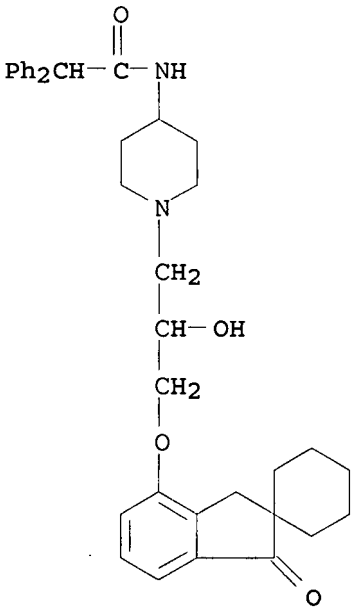


AB The platelet theory of migraine causation predicts that drugs inhibiting platelet activation will be effective in migraine prevention, but the literature indicates that this is only partly the case. Conversely, therapy achieving clin. benefit should be associated with reduced platelet activity. To test this concept, the β-adrenergic blockers propranolol (nonselective), metoprolol (β1-selective) and Li-32468 (β2-selective) were used in migraine therapy with assessments of platelet aggregation and release, plasma TXA2 (measured as TXB2) and clin. response. Between propranolol and Li-32468, there was lack of correlation of clin. with platelet effects. Propranolol and metoprolol, whose established efficacy in migraine prophylaxis was shown, actually had opposite effects on platelet activity, which was increased with the former and inhibited by the latter. Yet both drugs gave elevated TXB2 levels. In view of this complete dissociation between drug effects on platelets of migrainerus and symptoms of migraine, the platelet theory of migraine causation is untenable.

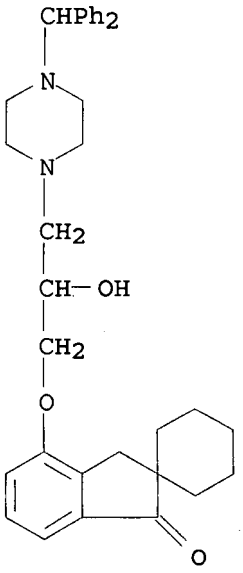
L20 ANSWER 11 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1986:572505 Document No. 105:172505 3-Aminopropoxyaryl derivatives. Berthold, Richard; Ott, Hans (Sandoz S. A., Switz.). Fr. Demande FR 2567885 A1 19860124, 57 pp. (French). CODEN: FRXXBL. APPLICATION: FR 1985-10852 19850712. PRIORITY: DE 1984-3426630 19840719; DE 1984-3426632 19840719; DE 1985-3509557 19850316.
IT **103915-01-1P 103915-02-2P 104752-91-2P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of, as cardiotonic drug)
RN 103915-01-1 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[[1-(diphenylmethyl)-4-piperidinyl]amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



RN 103915-02-2 CAPLUS
CN Benzeneacetamide, N-[1-[3-[(1',3'-dihydro-1'-oxospiro[cyclohexane-1,2'-[2H]inden]-4'-yl)oxy]-2-hydroxypropyl]-4-piperidinyl]-α-phenyl- (9CI) (CA INDEX NAME)



RN 104752-91-2 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[4-(diphenylmethyl)-1-piperazinyl]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



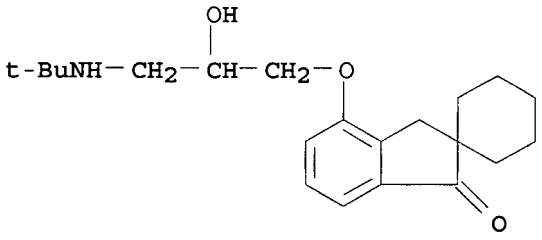
AB The title compds. R1OCH2CH(OH)CH2Z(CO)mR [R = (un)substituted alkyl; R1 = aromatic or heteroarom. radical; Z = piperidinylamino, 4-piperazinylamino, NR2(CH2)nNR3; R2, R3 = H, alkyl; n = 2-4] are prepared as cardiotonic, antiarrhythmic, and α- and β-sympatholytics. Thus, melting a mixture of (S)-4-(2,3-epoxypropoxy)-1H-indole-2-carbonitrile (preparation given) with 1-(3,3'-dithienylmethyl)piperazine (preparation given) gave (S)-4-[3-[4-(3,3'-dithienylmethyl)piperazin-1-yl]-2-hydroxypropoxy]-1H-indole-2-carbonitrile (I). I (10-9-10-6M) inhibited the pos. inotropic effect of adrenaline on the guinea pig auricle, in vitro.

L20 ANSWER 12 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1985:400551 Document No. 103:551 Biochemical and physiological effects of S-32-468, a beta-adrenoceptor antagonist with possible oculoselectivity. Nathanson, James A. (Dep. Neurol., Harvard Med. Sch., Boston, MA, 02114, USA). Current Eye Research, 4(3), 191-7 (English) 1985. CODEN: CEYRDM. ISSN: 0271-3683.

IT **81840-58-6**
RL: BIOL (Biological study)
(β-sympatholytic activity of, in eye of human and laboratory animals)

RN 81840-58-6 CAPLUS

CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



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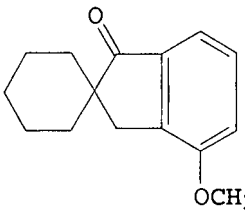


$OCH_2CH(OH)CH_2NHCMe_3$ I

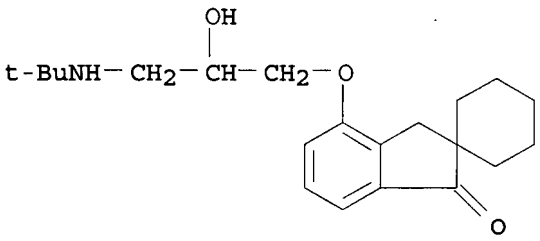
AB S-32-468 (I) [**81840-58-6**], a recently synthesized β-adrenoceptor antagonist, was tested for its ability to inhibit activation of isoproterenol [7683-59-2]-stimulated adenylate cyclase [9012-42-4] activity in rabbit and human ciliary process, heart, and lung. In both species, I was a potent inhibitor of ocular β-adrenoceptors, with a 9-12-fold selectivity over inhibition of β-adrenoceptors in cardiac tissue. When applied topically, I was more effective than timolol in decreasing intraocular pressure in normal albino rabbits.

L20 ANSWER 13 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1985:142793 Document No. 102:142793 Differential inhibition of beta adrenergic receptors in human and rabbit ciliary process and heart. Nathanson, James A. (Dep. Neurol., Harvard Med. Sch., Boston, MA, 02114, USA). Journal of Pharmacology and Experimental Therapeutics, 232(1), 119-26 (English) 1985. CODEN: JPETAB. ISSN: 0022-3565.

IT **81840-58-6**
RL: BAC (Biological activity or effector, except adverse); BIOL (Biological study)
(β-adrenergic receptors inhibition by, in eye ciliary process and heart of human and rabbit, mol. structure in relation to)

RN 81840-58-6 CAPLUS

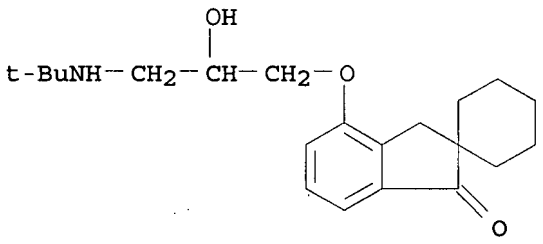
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB A number of β-adrenergic antagonists were evaluated for their ability to block rabbit and human ciliary process and heart β-adrenergic receptors activating adenylate cyclase [9012-42-4]. Three of these agents (α-methylpropranolol [21912-00-5], IPS 339 [60979-28-4], and ICI 118,551) [72795-19-8] demonstrated a high degree of oculoselectivity in both rabbit and human. The other agents (S 37-429 [68591-79-7], S 32-468 [**81840-58-6**], ICI 78,462 [95263-19-7], H35/25 [13549-60-5], butoxamine [1937-89-9], propranolol [525-66-6], timolol [26839-75-8], atenolol [29122-68-7], and practolol [6673-35-4]) showed either modest or no oculoselectivity. Structure-activity studies suggested that, among antagonists of the aryloxymethyl type, methylation of the side-chain α-carbon or the aromatic ring may enhance oculoselectivity primarily by decreasing potency at cardiac β-adrenergic receptors. Addnl. physiol. studies of cardiac chronotropic response revealed that, compared with nonselective β-blockers, compds. with biochem. oculoselectivity demonstrate

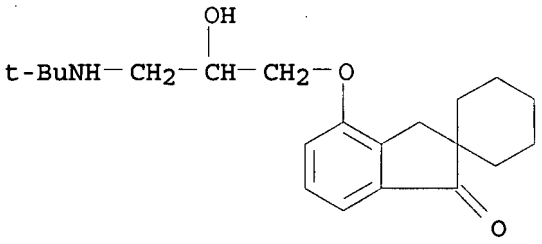
decreased physiol. effects on cardiac function. This was true when the selective agents were applied either systemically or topically to the eye. On the other hand, the systemic absorption of topical timolol was sufficient to block cardiac chronotropic effects completely. These findings, identifying relatively specific blockers of rabbit and human ciliary process β-adrenergic receptors, have implications for the development of ocular hypotensive agents with fewer systemic side effects on tissues enriched in β1-adrenergic receptors.

L20 ANSWER 14 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1982:416556 Document No. 97:16556 The binding characteristics of some adrenergic beta-receptor antagonists to human serum proteins. Lemaire, M.; Tillement, J. P. (Pharm. Dep., Sandoz Ltd., Basel, Switz.). Biochemical Pharmacology, 31(3), 359-65 (English) 1982. CODEN: BCPCA6. ISSN: 0006-2952.
IT **81840-58-6**
RL: BIOL (Biological study)
(serum proteins binding of, characterization of)
RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB In vitro binding of pindolol [13523-86-9] and 8 related compds. in serum was compared with the binding to the main, isolated, serum proteins by equilibrium dialysis. Most substances showed both saturable and nonsaturable binding. The saturable and main binding was to α1-acid glycoprotein (α-AGP), the low nonsaturable binding corresponding to albumin and lipoprotein binding. Binding to α1-AGP was characterized by .apprx.1 binding site and association consts. of 104-106/M. Pindolol binding to α1-AGP was strongly inhibited by propranolol, lidocaine, erythromycin, imipramine, and TBEP. Calcns. of binding indicated that the protein binding of the 9 adrenergic beta-receptor antagonists to all serum proteins is hydrophobic.

L20 ANSWER 15 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1982:213554 Document No. 96:213554 High-performance liquid chromatography of naphthylurethanes with fluorescence detection. Wintersteiger, R.; Wenninger-Weinzierl, G.; Pacha, W. (Inst. Pharm. Chem., Univ. Graz, Graz, A-8010, Austria). Journal of Chromatography, 237(3), 399-406 (English) 1982. CODEN: JOCRAM. ISSN: 0021-9673.
IT **81840-58-6**
RL: ANT (Analyte); ANST (Analytical study)
(determination of, in blood plasma by liquid chromatog. as naphthylurethane derivative)
RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



AB The method used previously (Wintersteiger, R.; Wenninger-Weinzierl, G., 1981) for the fluorodensitometric determination of compds. with an alc. hydroxyl group was examined for its applicability in high-performance liquid chromatog. The conversion of alc. substances into urethanes was performed with naphthyl isocyanate. CHCl3-PhH-EtOH and heptane-Et2O, were used as eluents for the separation of urethanes of various polarity with silica gel columns. Reversed-phase material is also suitable. The detection limits ascertained by means of fluorescence detection are in the picomole range.

L20 ANSWER 16 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1980:41644 Document No. 92:41644 Substituted 3-amino-2-hydroxypropoxyphenyl derivatives. Berthold, Richard; Payne, Trevor Glyn (Sandoz-Patent-G.m.b.H., Switz.). Ger. Offen. DE 2802758 19790726, 21 pp. (German).
CODEN: GWXXBX. APPLICATION: DE 1978-2802758 19780123.

IT **65451-84-5P 65451-87-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation and cleavage of)

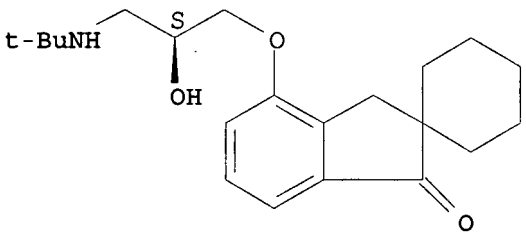
RN 65451-84-5 CAPLUS

CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

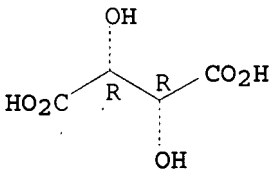
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.

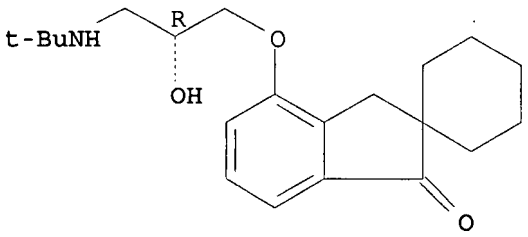


RN 65451-87-8 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (R)-, [S-(R*,R*)]-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-86-7
CMF C21 H31 N O3

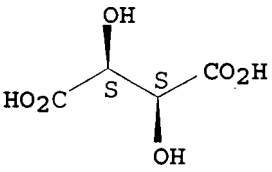
Absolute stereochemistry.



CM 2

CRN 147-71-7
CMF C4 H6 O6

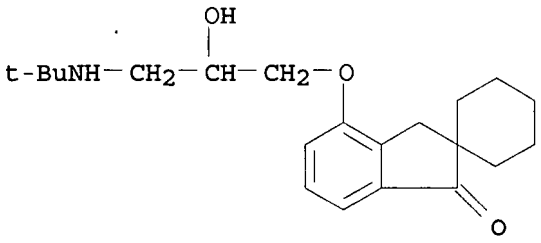
Absolute stereochemistry.



IT **65429-88-1P 65451-85-6P 65451-88-9P**
66481-58-1P 81840-58-6P
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 65429-88-1 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

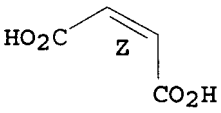
CRN 81840-58-6
CMF C21 H31 N O3



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

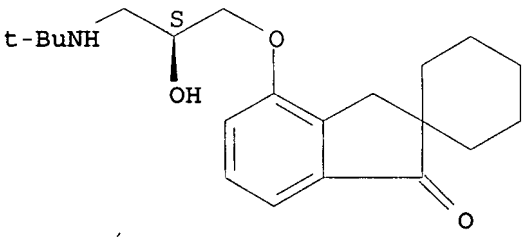


RN 65451-85-6 CAPLUS
CN Propanedioic acid, compd. with (S)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

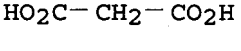
CRN 65451-83-4
CMF C21 H31 N O3

Absolute stereochemistry.



CM 2

CRN 141-82-2
CMF C3 H4 O4

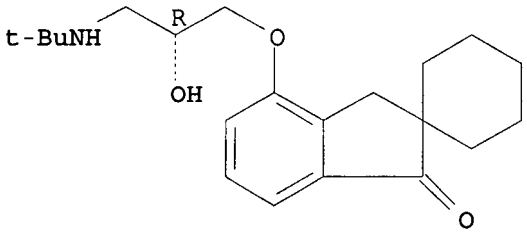


RN 65451-88-9 CAPLUS
CN Propanedioic acid, compd. with (R)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

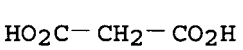
CRN 65451-86-7
CMF C21 H31 N O3

Absolute stereochemistry.



CM 2

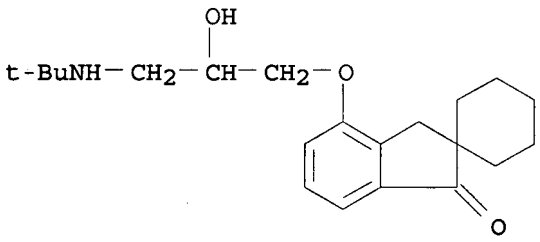
CRN 141-82-2
CMF C3 H4 O4



RN 66481-58-1 CAPLUS
CN Propanedioic acid, compd. with 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

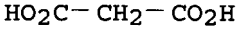
CM 1

CRN 81840-58-6
CMF C21 H31 N O3

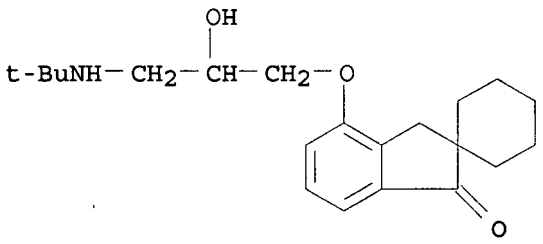


CM 2

CRN 141-82-2
CMF C3 H4 O4



RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)



GI For diagram(s), see printed CA Issue.

AB Seven polycyclic hydroxy ethers I [X = C2-4 alkylene, alkenylene; n = 1, 2, 3; R = H, halogen of atomic number 9-35; R1 = CR2R3R4 (R2, R3 = H, C1-4 alkyl; R4 = C1-4 alkyl, C2-5 alkoxylalkyl, alkylthioalkyl, Ph, phenyl-, phenoxy-, or phenylthioalkyl, the Ph moiety optionally substituted with C1-4 alkyl or alkoxy, OH, halogen of atomic number 9-35); R5 = H; NR1R5 = 2,2,6,6-tetramethyl-1-piperidinyl, 2,2,5,5-tetramethyl-1-pyrrolidinyl, 4-substituted 1-piperazinyl] in racemic or optically-active form or as acid addition salts, useful to inhibit undesired fatty acid and glucose psychic stress-induced metabolism, as β-sympatholytics, as antiarrhythmics, as diuretics, and as antihypertensives (no data) were prepared Thus, successively dropping 4-methoxy-1-indanone and (BrCH2CH2)2CH2 in C6H6 into KOCMe3 in C6H6, stirring and refluxing 4 h, cleaving the ether II (R6 = Me) with HBr-AcOH 20 h at reflux, treating the phenol II (R6 = H) with epichlorohydrin containing piperadine 4 h at 100°, and heating the mixture of II (R6 = 2,3-epoxypropyl) and II [R6 = CH2CH(OH)CH2Cl] in dioxane with Me3CNH2 20 h at 130° gave (±)-II [R6 = CH2CH(OH)CH2NHCMe3], which was resolved into its (R) and (S) enantiomers.

L20 ANSWER 17 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN

1979:5898 Document No. 90:5898 1-Amino-3-aryloxy-2-propanol derivatives. Lier, Edouard (Sandoz-Patent-G.m.b.H., Switz.). Ger. Offen. DE 2810732 19780928, 29 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1978-2810732 19780313.

IT **68430-39-7P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)

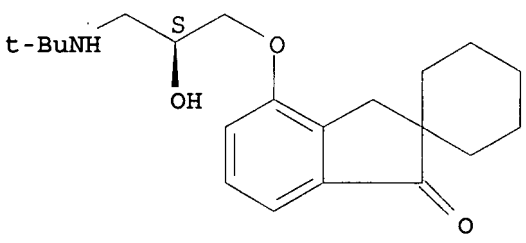
RN 68430-39-7 CAPLUS

CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[(2S)-3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

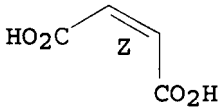
Absolute stereochemistry.



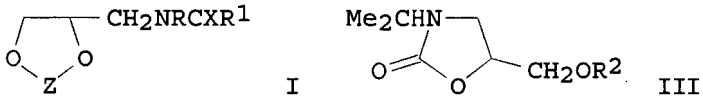
CM 2

CRN 110-16-7
CMF C4 H4 O4

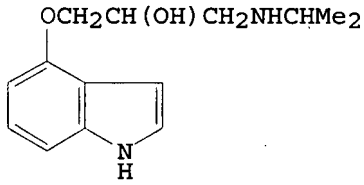
Double bond geometry as shown.



GI



I III



IV

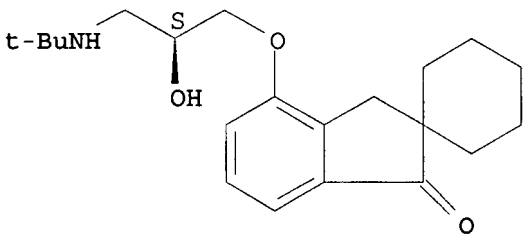
AB HOCH2CH(OH)CH2NRCXR1 (R = inert group; R1 = leaving group; X = O, S) were prepared by deblocking I (Z = blocking group). Thus, 1,2,5,6-diisopropylidene-D-mannitol was oxidized with Pb(OAc)4 to give (4R)-4-formyl-2,2-dimethyl-1,3-dioxolane, which was reduced and treated with Me2CHNH2 to give (4S)-4-isopropylaminomethyl-2,2-dimethyl-1,3-dioxolane (II). II was treated with ClCO2Et and the resulting carbamate treated with HCl to give (2S)-HOCH2CH(OH)CH2N(CHMe2)CO2Et. The latter was treated with base to give oxazolidinone III (R2 = H), which was O-tosylated and treated with 4-indolol to give III (R2 = 4-indolyl). Treatment of III (R2 = 4-indolyl) with base gave (2S)-IV.

L20 ANSWER 18 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1978:406148 Document No. 89:6148 Propylene glycol derivatives. Berthold, R.; Payne, T. G. (Sandoz S. A., Switz.). Belg. BE 854567 19771114, 27 pp. (French). CODEN: BEXXAL. APPLICATION: BE 1977-177524 19770512.
IT **65451-85-6P 66481-57-0P 66481-58-1P**
66481-59-2P 81840-58-6P
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)
(preparation and pharmacol. activity of)
RN 65451-85-6 CAPLUS
CN Propanedioic acid, compd. with (S)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

Absolute stereochemistry.



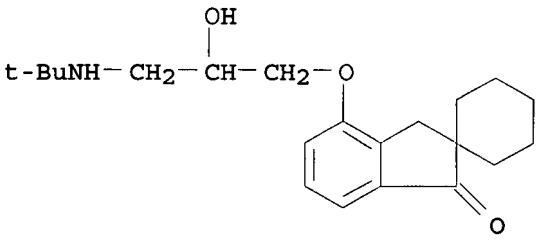
CM 2

CRN 141-82-2
CMF C3 H4 O4

RN 66481-57-0 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (2:1) (salt) (9CI) (CA INDEX NAME)

CM 1

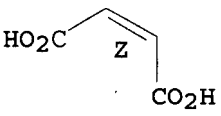
CRN 81840-58-6
CMF C21 H31 N O3



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

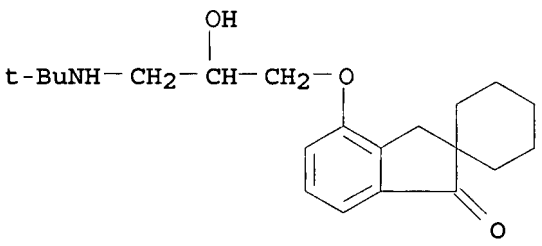


RN 66481-58-1 CAPLUS
CN Propanedioic acid, compd. with 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

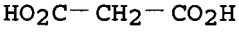
10575522

CRN 81840-58-6
CMF C21 H31 N O3



CM 2

CRN 141-82-2
CMF C3 H4 O4

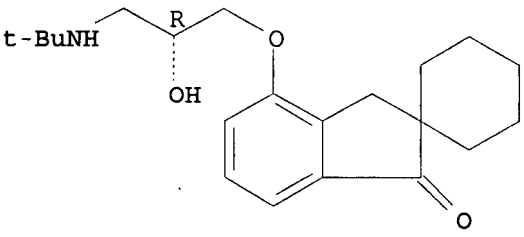


RN 66481-59-2 CAPLUS
CN Propanedioic acid, compd. with (R)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:2) (9CI) (CA INDEX NAME)

CM 1

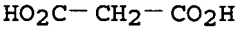
CRN 65451-86-7
CMF C21 H31 N O3

Absolute stereochemistry.

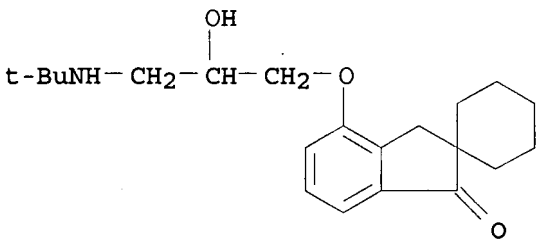


CM 2

CRN 141-82-2
CMF C3 H4 O4



RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

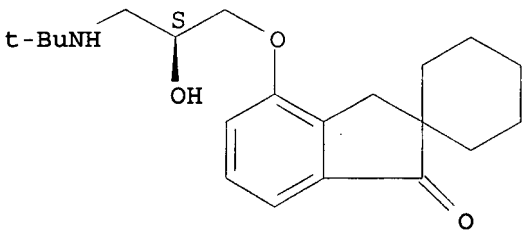


IT **65451-84-5P 65451-87-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(preparation of)
RN 65451-84-5 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

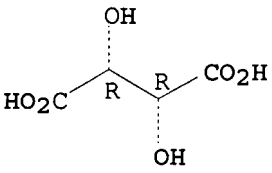
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



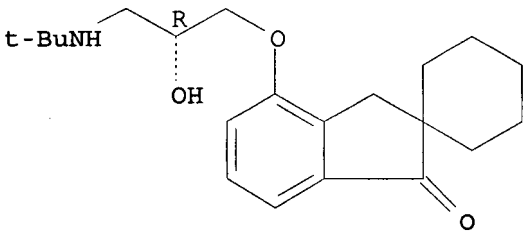
RN 65451-87-8 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (R)-, [S-(R*,R*)]-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-86-7
CMF C21 H31 N O3

Absolute stereochemistry.

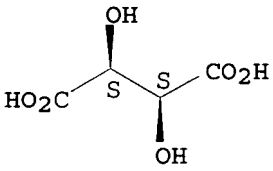
10575522



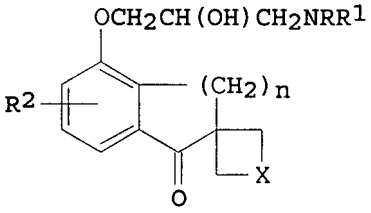
CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



GI



I

AB 3-Aminopropylene glycol 1-monoethers I [R = alkyl, alkoxyalkyl, alkylthioalkyl, aralkyl, phenoxyalkyl, phenylthioalkyl, etc., R1 = H, or RR1N = 2,2,6,6-tetramethylpiperidino, 2,2,5,5-tetramethyl-1-pyrrolidinyl, 4-alkyl or 4-(substituted phenyl)-1-piperazinyl; R2 = H, Br, Cl, F; X = C2-C4 alkylene or alkenylene; n = 1, 2, 3], which are useful as antihypertensives and antiarrhythmics and for the treatment of other heart disorders, were prepared; the 2S-isomers are especially effective. Thus, 4-methoxy-1-indanone cyclocondensed with Br(CH2)5Br in benzene containing Me3COK to give 4'-methoxyspiro[cyclohexane-1,2'-indan]-1'-one, which was demethylated, then treated successively with epichlorohydrin and Me3CNH2 to give I [R = Me3C, R1 = R2 = H, X = (CH2)3, n = 1].

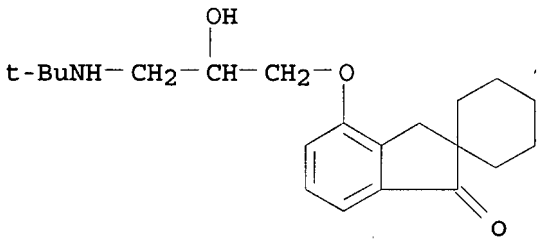
L20 ANSWER 19 OF 19 CAPLUS COPYRIGHT 2007 ACS on STN
1978:74241 Document No. 88:74241 Substituted 3-amino-2-hydroxypropoxyphenyl derivatives. Berthold, Richard; Payne, Trevor Glyn (Sandoz-Patent-G.m.b.H., Fed. Rep. Ger.). Ger. Offen. DE 2719871 19771201, 20 pp. (German). CODEN: GWXXBX. APPLICATION: DE 1977-2719871 19770504.
IT **65429-88-1P 65451-85-6P 65451-88-9P**
65462-27-3P 81840-58-6P
RL: PREP (Preparation)
(manufacture of, for use as pharmaceutical)

10575522

RN 65429-88-1 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (2Z)-2-butenedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

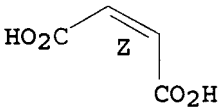
CRN 81840-58-6
CMF C21 H31 N O3



CM 2

CRN 110-16-7
CMF C4 H4 O4

Double bond geometry as shown.

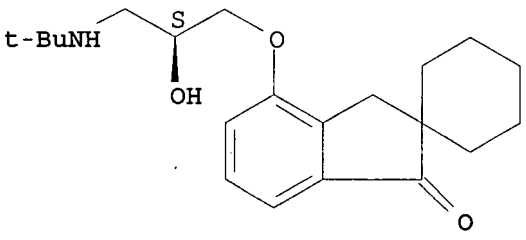


RN 65451-85-6 CAPLUS
CN Propanedioic acid, compd. with (S)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

Absolute stereochemistry.



CM 2

CRN 141-82-2
CMF C3 H4 O4

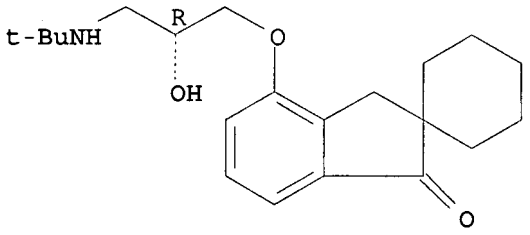
$HO_2C-CH_2-CO_2H$

RN 65451-88-9 CAPLUS
CN Propanedioic acid, compd. with (R)-4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-86-7
CMF C21 H31 N O3

Absolute stereochemistry.



CM 2

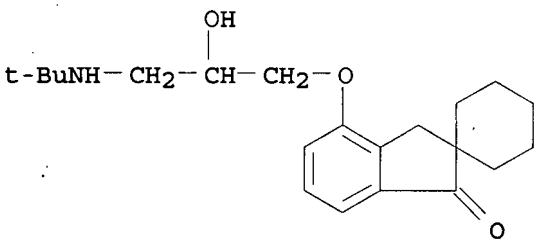
CRN 141-82-2
CMF C3 H4 O4

$HO_2C-CH_2-CO_2H$

RN 65462-27-3 CAPLUS
CN Propanedioic acid, compd. with 4-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 81840-58-6
CMF C21 H31 N O3

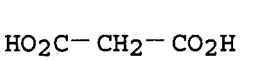


CM 2

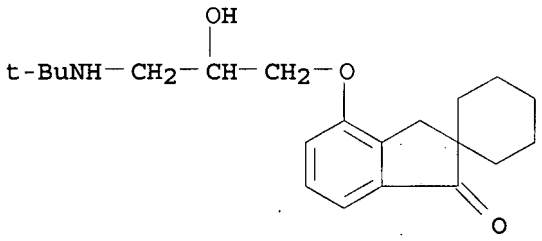
CRN 141-82-2

10575522

CMF C3 H4 O4



RN 81840-58-6 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]- (9CI) (CA INDEX NAME)

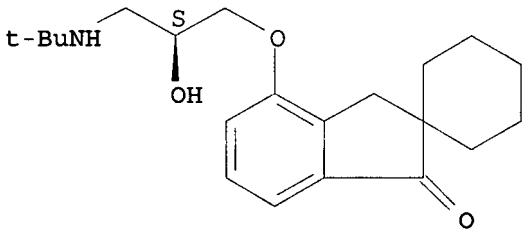


IT **65451-84-5P 65451-87-8P**
RL: SPN (Synthetic preparation); PREP (Preparation).
(preparation of)
RN 65451-84-5 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (S)-, (2R,3R)-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-83-4
CMF C21 H31 N O3

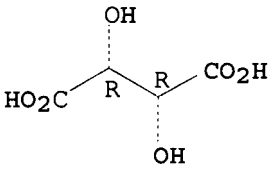
Absolute stereochemistry.



CM 2

CRN 87-69-4
CMF C4 H6 O6

Absolute stereochemistry.



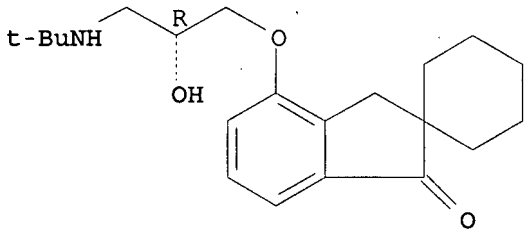
10575522

RN 65451-87-8 CAPLUS
CN Spiro[cyclohexane-1,2'-[2H]inden]-1'(3'H)-one, 4'-[3-[(1,1-dimethylethyl)amino]-2-hydroxypropoxy]-, (R)-, [S-(R*,R*)]-2,3-dihydroxybutanedioate (1:1) (salt) (9CI) (CA INDEX NAME)

CM 1

CRN 65451-86-7
CMF C21 H31 N O3

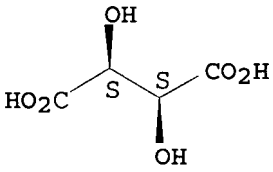
Absolute stereochemistry.



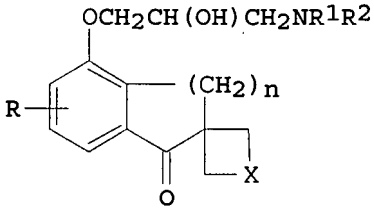
CM 2

CRN 147-71-7
CMF C4 H6 O6

Absolute stereochemistry.



GI



I

AB Aminospiroalkanols I [R = H, F, Cl Br; R1 = H, R2 = CR3R4R5, where R3 and R4 = H or C1-4 alkyl, and R5 = alkyl, Ph, phenylalkyl, substituted alkyl, etc., or R1R2 = CMe2(CH2)mCMe2 (m = 2 or 3) or (CH2)2NR6(CH2)2 (R6 = C1-4 alkyl); X = C2-4 alkylene or alkenylene; n = 1-3], useful as antiarrhythmics, diuretics, and antihypertensives (no data), were prepared Thus, cyclocondensation of Br(CH2)5Br with 4-methoxy-1-indanone followed by demethylation and reaction with epichlorohydrin gave a mixture of 4'-(2,3-epoxypropoxy)- and 4'-(3-chloro-2-hydroxypropoxy)spiro[cyclohexane-1,5'-indan]-1'-one, which was treated with Me3CNH2 to give (±)-I [R = R1 = H, R2 = CMe3, X = (CH2)3, n = 1], and this was resolved into (+)-I

and (-)-I by treatment with L- and D-tartaric acid.

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